

SEQUENCE LISTING

<110> Korea Kumho Petrochemical Co.,Ltd.
 Choi, Giltso
 Johnson, Eric
 Yi, Hankuil
 Shin, Byongchul

<120> Genetic Sequences Encoding Substrate-Specific Dihydroflavan
 ol 4-Reductase and Uses Therefor

<130> 4469-111 US

<140> 09/638,715
 <141> 2000-08-14

<160> 35

<170> PatentIn version 3.0

<210> 1
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 <301> Helariutta, Y., Kotilainen, M., Elomaa, P. and Teeri, T. H.
 <302> Gerbera hybrida (Asteraceae) imposes regulation at several
 anatomical levels during inflorescence development on the gene for
 dihydroflavanol-4-reductase
 <303> Plant Mol. Biol. 28(5), 935-41
 <304> 28
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 <306> 935-941
 <307> 1995- -
 <308> Z17221
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Val	His	Ala	Thr	Val	Arg	Asp	Pro	Gly	Asp	Leu	Lys	Lys	Val	Lys	His	35	40	45	
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Asp	Leu	Thr	Gln	Glu	Gly	Ser	Phe	Asp	Glu	Ala	Ile	Gln	Gly	Cys	His	65	70	75	
Gly	Val	Phe	His	Leu	Ala	Thr	Pro	Met	Asp	Phe	Glu	Ser	Lys	Asp	Pro	85	90	95	
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Tyr Leu Tyr Glu Asn Pro Lys Ala Lys Gly Arg Tyr Ile Cys Ser Ser
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His Asp Ala Thr Ile His Gln Leu Ala Lys Ile Ile Lys Asp Lys Trp
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Pro Glu Tyr Tyr Ile Pro Thr Lys Phe Pro Gly Ile Asp Glu Glu Leu
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Pro Ile Val Ser Phe Ser Ser Lys Lys Leu Ile Asp Thr Gly Phe Glu
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Phe Lys Tyr Asn Leu Glu Asp Met Phe Lys Gly Ala Ile Asp Thr Cys
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Arg Glu Lys Gly Leu Leu Pro Tyr Ser Thr Ile Lys Asn His Ile Asn
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<309> 1995-11-23

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Val	His	Ala	Thr	Val	Arg	Asp	Pro	Gly	Asp	Leu	Lys	Lys	Val	Lys	His	35	40	45	
Leu	Leu	Glu	Leu	Pro	Lys	Ala	Gln	Thr	Asn	Leu	Lys	Leu	Trp	Lys	Ala	50	55	60	
Asp	Leu	Thr	Gln	Glu	Gly	Ser	Phe	Asp	Glu	Ala	Ile	Gln	Gly	Cys	His	65	70	75	
Gly	Val	Phe	His	Leu	Ala	Thr	Pro	Met	Asp	Phe	Glu	Ser	Lys	Asp	Pro	85	90	95	
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Glu	Ser	His	Trp	Ser	Asp	Leu	Asp	Phe	Ile	Tyr	Ser	Lys	Lys	Met	Thr	145	150	155	
Ala	Trp	Met	Tyr	Phe	Val	Ser	Lys	Thr	Leu	Ala	Glu	Lys	Ala	Ala	Trp	165	170	175	
Asp	Ala	Thr	Lys	Gly	Asn	Asn	Ile	Ser	Phe	Ile	Ser	Ile	Ile	Pro	Thr	180	185	190	
Leu	Val	Val	Gly	Pro	Phe	Ile	Thr	Ser	Thr	Phe	Pro	Pro	Ser	Leu	Val	195	200	205	
Thr	Ala	Leu	Ser	Leu	Ile	Thr	Gly	Asn	Glu	Ala	His	Tyr	Ser	Ile	Ile	210	215	220	
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His Asp Ala Thr Ile His Gln Leu Ala Lys Ile Ile Lys Asp Lys Trp
260 265 270

Pro Glu Tyr Tyr Ile Pro Thr Lys Phe Pro Gly Ile Asp Glu Glu Leu
275 280 285

Pro Ile Val Ser Phe Ser Ser Lys Lys Leu Ile Asp Thr Gly Phe Glu
290 295 300

Phe Lys Tyr Asn Leu Glu Asp Met Phe Lys Gly Ala Ile Asp Thr Cys
305 310 315 320

Arg Glu Lys Gly Leu Leu Pro Tyr Ser Thr Ile Lys Asn His Ile Asn
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35 40 45
Phe Val Ser Lys Ala Leu Ala Glu Lys Ala Ala Met
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<210> 17

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<213> Callistephus sp.

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Ser Asp Leu Asp Phe Ile Tyr Ser Lys Lys Met Thr Ala Trp Met Tyr
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Phe Val Ser Lys Thr Leu Ala Glu Lys Ala Ala Met
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Ser Asp Met Asp Phe Ile Tyr Ser Thr Lys Met Thr Ala Trp Met Tyr
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Phe Val Ser Lys Ser Leu Ala Glu Lys Ala Ala Trp
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<213> Camellia sp.

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Phe Val Ser Lys Thr Leu Ala Glu Lys Ala Ala Trp
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Leu Asp Val Gln Glu Asp Gln Lys Leu Phe Tyr Asp Glu Thr Ser Trp

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 35 40 45

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Phe Val Ser Lys Thr Leu Ala Glu Lys Ala Ala Trp
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Lys Ala Lys Thr Val Gln Arg Leu Val Phe Thr Ser Ser Ala Gly Thr
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Phe Val Ser Lys Thr Leu Ala Glu Lys Glu Ala Trp
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